

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
8 June 2000 (08.06.2000)

PCT

(10) International Publication Number  
WO 00/33160 A3

(51) International Patent Classification<sup>7</sup>: H04N 7/173

(21) International Application Number: PCT/US99/28528

(22) International Filing Date: 2 December 1999 (02.12.1999)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

09/204,888 3 December 1998 (03.12.1998) US

09/205,119 3 December 1998 (03.12.1998) US

09/205,653 3 December 1998 (03.12.1998) US

(71) Applicant (for all designated States except US): TELECOM PARTNERS LTD. [US/US]; 300 N. Broad Street, Doylestown, PA 18901 (US).

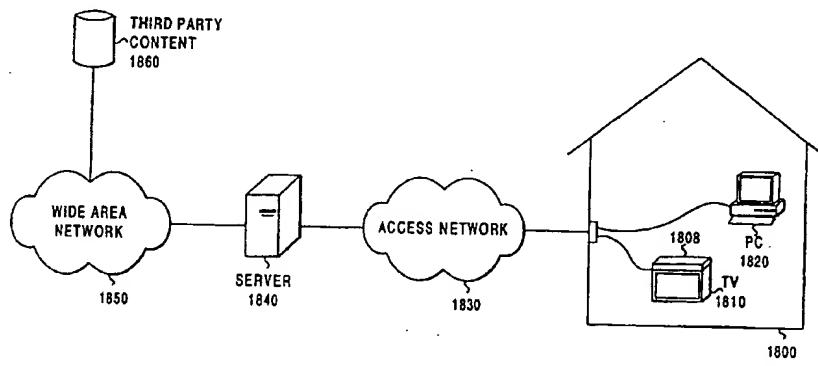
(72) Inventors; and

(75) Inventors/Applicants (for US only): ELDERING, Charles, A. [US/US]; 315 Hedgerow Lane, Doylestown, PA 18901 (US). SYLLA, M., Lamine [SN/US]; 6 West Butler Avenue, New Britain, PA 18901 (US).

(74) Agent: RYDER, Douglas, J.; 300 North Broad Street, Doylestown, PA 18901 (US).

(54) Title: SUBSCRIBER CHARACTERIZATION AND ADVERTISEMENT MONITORING SYSTEM

WO 00/33160 A3



(57) Abstract: A subscriber characterization and advertisement monitoring system is presented in which subscriber viewing habits are monitored to determine demographic profiles. These profiles can be utilized for the matching of advertisements to subscribers based on their viewing habits and estimated demographics and product interests. The system can be run locally in a television set-top (1808) or can be run in client server mode where channel selections are transmitted from the residence (1800) to a centralized switching location server (1840) such as a telephone office or Internet Service Provider. In client-server mode the channel selections are monitored at the centralized location (1840) which also performs the subscriber characterization. The system also provides the ability to monitor if advertisements were viewed and for what duration.

## INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/28528

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :H04N 7/173  
 US CL 345/327; 348/1,7,9,12,13; 455/2,4,2, 5,1,6,2,6,3

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 345/327; 348/1,7,9,12,13; 455/2,4,2, 5,1,6,2,6,3

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US, 5,374,951 A (WELSH) 20 December 1994 figure 7 & columns 14-15.	1
A, P	US 5,977,964 A (WILLIAMS et al.) 02 November 1999 whole document	1-7
A	US 5,786,845 A (TSURIA) 28 July 1998 whole document	8-13
A	US 5,233,423 A (JERNIGAN et al.) 03 August 1993 whole document	8-13
A	US 5,805,974 A (HITE et al.) 08 September 1998 whole document	8-13

Further documents are listed in the continuation of Box C.  See patent family annex.

* Special categories of cited documents:	*T*	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
*A*	document defining the general state of the art which is not considered to be of particular relevance	
*B*	earlier document published on or after the international filing date	*X*
*L*	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	
*O*	document referring to an oral disclosure, use, exhibition or other means	*Y*
*P*	document published prior to the international filing date but later than the priority date claimed	*A*

Date of the actual completion of the international search Date of mailing of the international search report

16 JUNE 2000

01 AUG 2000

Name and mailing address of the ISA/US  
 Commissioner of Patents and Trademarks  
 Box PCT  
 Washington, D.C. 20231  
 Facsimile No. (703) 305-3230

Authorized Officer  
 CHRISTOPHER GRANT  
 Telephone No. (703) 305-4755

Form PCT/ISA/210 (second sheet) (July 1998)\*

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US99/28528

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,758,259 A (LAWLER) 26 May 1998 figures 5 & 6.	14,15,22 33,34,40 -----
Y		30-32, 49-51
X	US 5,635,989 A (ROTHMULLER) 03 June 1997 figure 3	14,22
X	US 5,410,344 A (GRAVES et al.) 25 April 1995 whole document, especially figure 4.	14,16-18, 22,23
A,E	US 6,002,394 A (SCHEIN et al.) 14 December 1999 col. 15, line 58 - col. 16, line 14.	25-29,44-48 -----
Y,E		30-32,49-51
A	US 5,515,098 A (CARLES) 07 May 1996 whole document	30-32,49-51

Form PCT/ISA/210 (continuation of second sheet) (July 1998)\*